

Reconceptualizing Teacher Education Programs: Applying Dewey's Theories to Service-Learning With Early Childhood Preservice Teachers

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Abstract

Dewey's concept of enabling children to explore based on their own interests has evolved into investigations and projects using methods of exploration, experimentation, and discovery—three tenets of service-learning. Using mixed methodology, the authors examined the implementation of service-learning in a teacher education program. A total of 155 preservice teachers participated in this study over a 5-year period. Results indicated that preservice teachers believed that their service-learning experiences provided a valuable contribution to the development of pedagogical skills, as well as fostering self-actualization and social-moral development. They also rated the importance of service-learning highly in pedagogical, self-actualization, and social-moral development.

Introduction

Although John Dewey certainly has a prominent position in the history of education, one might nonetheless ask what influence his works have in the 21st century. In the face of growing of technology, requirements that educators comply with standards imposed by high-stakes testing, and political infighting over strongly held opposing viewpoints in first-world countries, we believe that Dewey's (1916) theory that children need concrete and experiential activities in order to create an awareness of how they can contribute to and change society for the better is more relevant today than ever before.

The overarching theme of Dewey's framework was his profound belief in democracy. He had a sociological opinion of the world that was evident throughout his writings. Dewey repeatedly made the case that learning is a social, interactive process and therefore, educational institutions should be places in which social reform takes place. He also posited that students find learning meaningful and applicable when they are allowed to take part in their own learning through experience and interaction with the

curriculum. Dewey asserted that education should go beyond the acquisition of content knowledge and focus on learning how to live as a contributing part of civil society while still a student. In fact, Dewey challenged teachers to cultivate students' capacities for what they could do to improve the conditions of others in order to have a life worth living (*Fishman & McCarthy, 2010*). Service-learning may be a tool through which teachers and teacher educators can apply Dewey's theories in their classrooms.

Teacher education, and more specifically early childhood education, has a long relationship with the teachings of John Dewey. To this day, teachers can thank Dewey for practical learning centers in the classroom such as the pretend center, which might be a home, a restaurant, or a grocery store depending on the focus of study (*Dewey, 1971*). In the more progressive early childhood classrooms and centers, there will be a woodworking area with actual tools such as hammers, saws, and screwdrivers for children to create and build with wood. Many Reggio Emilia-inspired classrooms draw heavily on Dewey by using natural materials for children to explore based on their own interests. Investigations and projects are often the methodology teachers use to structure such explorations, experimentations, and discoveries. Service-learning can act as a natural extension of such projects through a focus on age-appropriate activities, the child's interests, and the community in which the child lives.

Service-learning is both a theory and a methodology. It is experiential education that occurs over a period of time and requires interaction between the preservice teacher (PST) and the community (*Corporation for National & Community Service, n.d.*). Experiential learning is effective because, as Dewey asserts, knowledge has to be applied, and situational knowledge is easier to recall. This requires reflective thinking and inquiry, which Dewey calls the scientific method (*Giles & Eyer, 1994*). Additionally, experiential learning is reflected in the Common Core State Standards (*National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010*) that many states in the United States are currently implementing.

Furthermore, higher education is being asked to renew its historic commitment to service-learning by accepting a leadership role in addressing society's increasing problems and in meeting growing human needs (*Jacoby & Mutascio, 2010*). Understanding that service-learning promotes high-quality learning, federal and state governments are encouraging schools and colleges to promote this strategy. Although extensive research has been performed

on service-learning in middle and high school, there is minimal research with early childhood PSTs, elementary students, and children in the early childhood grades. Therefore, it is critical to show early childhood PSTs what a powerful tool service-learning is to use with children. Specifically, well-designed service-learning that combines meaningful community service with curriculum-based learning enables teachers to meet the academic needs of young children in meaningful ways. To ensure that PSTs understand and can effectively implement service-learning, it should be integrated and modeled within early childhood teacher education programs.

The purpose of this article is to specifically focus on the implementation of service-learning in a teacher education program in which PSTs are exposed to experiential activities by planning, implementing, and participating in service-learning projects in the local community. The research questions that drive this study are (1) what degree of support and what level of importance do PSTs attribute to service-learning while they are working in the field as part of a teacher education program, and (2) how do Dewey's theories of social-moral development, pedagogy, and self-actualization impact their teaching?

Service-Learning

Service-learning is defined as a teaching and learning method that connects meaningful community service with academic learning, personal growth, and civic responsibility (*National Service-Learning Clearinghouse, 2013*). More specifically, the Corporation for National and Community Service (CNCS, *n.d.*), a federally funded U.S. agency that supports the practice from pre-K through higher education, states that service-learning combines service to the community with student learning in a way that improves both the student and the community. Service-learning is a method whereby students learn and develop through active participation in thoughtfully organized service that is conducted in and meets the needs of communities. Additionally, it involves coordination of a preschool, elementary school, secondary school, institution of higher education, or community service program with the community; helps foster civic responsibility; is integrated into and enhances the academic curriculum of the students or the education components of the community service program in which the participants are enrolled; and provides structured time for students or participants to reflect on the service experience.

Service-learning is divided into four different approaches (Kaye, 2004; Lake & Jones, 2008, 2012). In *direct service*, the interaction is person-to-person or face-to-face. Examples include field trips to visit a retirement center or hospital and cross-grade tutoring or mentoring. *Indirect service* provides service to the community but not to an individual. Projects might include planting a garden, writing letters, or drawing cards for the troops. Creating awareness of public interest issues is the focus of *advocacy service*. Students might be involved in making and posting *Do not litter* signs for their playground. The last type of service-learning, *research service*, focuses on finding, gathering, and reporting information. When students produce a book after researching and interviewing people who performed heroic acts after a local disaster, they are involved in research service.

The type of service-learning used should always complement and extend the academic content as well as match the developmental needs of the students involved (Lake & Jones, 2012). For example, preschool and primary students should be involved in direct service-learning. As preoperational thinkers, these students benefit from concrete experiences that focus on only one dimension of an event. Direct service-learning has a greater impact on students if they have face-to-face contact, thus receiving immediate feedback. However, if young students participate in an indirect or advocacy service-learning project, the teacher needs to facilitate as many concrete experiences as she can in order for the students to obtain that direct feedback. As students become concrete and abstract thinkers, they can be involved in planning and implementing all four types of service-learning. Older students are more capable of classifying objects and events, asking and answering “what if” questions, and thinking abstractly.

Whichever type of service-learning is implemented, it should strive to meet all of the service-learning standards established by the National Youth Leadership Council and released in 2008:

- *Meaningful service*: Service-learning actively engages participants in meaningful and personally relevant service activities.
- *Link to curriculum*: Service-learning is intentionally used as an instructional strategy to meet learning goals or content standards.
- *Reflection*: Service-learning incorporates multiple challenging reflection activities that are ongoing and

that prompt deep thinking and analysis about oneself and one's relationship to society.

- *Diversity*: Service-learning promotes understanding of diversity and mutual respect among all participants.
- *Youth voice*: Service-learning provides youth with a strong voice in planning, implementing, and evaluating service-learning experiences with guidance from adults.
- *Partnerships*: Service-learning partnerships are collaborative, mutually beneficial, and address community needs.
- *Progress monitoring*: Service-learning engages participants in an ongoing process to assess the quality of implementation and progress toward meeting specified goals, and uses results for improvement and sustainability.
- *Duration and intensity*: Service-learning has sufficient duration and intensity to address community needs and meet specified outcomes. (p. 1-4)

Although the service-learning standards stress more student involvement with the content and community, the pendulum in education has swung away from active, hands-on learning toward more traditional approaches due to No Child Left Behind (NCLB, 2001). Faced with increasing pressures to improve test scores and provide more intensive early intervention, many schools have adopted more didactic curriculum materials and pedagogical approaches. Teachers are required to adhere to these mandated approaches even though the National Association for the Education of Young Children (NAEYC) considers them developmentally inappropriate (Copple & Bredekamp, 2009). However, some early childhood educators have resisted implementing what they believe are inappropriate practices and have continued to teach following Dewey's (1916) belief that education should engage children and expand their experiences.

Young Children and Service-Learning

Dewey (1916) emphasized the importance of informal and experiential education and held the conviction that children should come to school to be in a community that provides them with guided experiences, real-life tasks, and challenges that pro-

mote their capacity to contribute to society. Dewey referred to learning from experience as *nature's way of learning*. Drawing on his contribution, therefore, schools should provide opportunities for students to apply their learning in the community and the world at large. Opportunities for service-learning give children a way to become involved in the community while learning fundamental skills and meeting the core objectives of the curriculum.

Educators who resist the trend toward more traditional or didactic teaching methods may feel justified in following Dewey's approach to learning. His approach is in agreement with instructional positions of such organizations as the National Council of Teachers of Mathematics (NCTM, 2000), the National Committee on Science Education (1996), the National Council of Teachers of English (NCTE, 2004), the National Council on Social Studies in the Schools (2010), the National Association of Elementary School Principals (*n.d.*), and the Association for Supervision and Curriculum Development (1989). These organizations call for a greater emphasis on active, hands-on learning; conceptual learning that leads to understanding along with acquisition of basic skills; meaningful, relevant learning experiences; interactive teaching and cooperative learning; and a broad range of relevant content integrated across traditional subject matter divisions (Zemelman, Daniels, & Hyde, 1998).

There are many persuasive reasons for using service-learning as pedagogy with young children. It is consistent with recommendations for best practices by NAEYC (Copple & Bredekamp, 2009). This organization highlights the importance of direct and meaningful experiences for children. Service-learning allows teachers to design instruction for young children in developmentally appropriate ways. Additionally, service-learning is a form of differentiated instruction and allows teachers to design curricula using methods such as thematic or content integration. Possibly the most compelling reason for using service-learning in the early childhood classroom is that it can strengthen student learning. Beyond supporting the teaching of academic subjects, service-learning also contributes toward broader school goals such as character education. Research shows that academic learning, social and moral development, civic skills, and character development are all supported when children engage in service-learning projects (Lake & Jones, 2012).

In his 1916 book *Democracy and Education*, Dewey outlined his theories of morals. He asserted that moral and social conduct are the same, a contention that supports service-learning since it is also based on interactions and experiences with others. Dewey also

said that moral behavior is determined by a set of values learned from lived experiences. Furthermore, Dewey believed that moral education in schools rests upon the values that children bring to the educational setting and that these values stem from the children's study of their own environments and communities. However, he did not believe that schools could directly teach specific morals. He claimed that by defining and teaching morals, schools define morality too narrowly. Moral behaviors should be based directly on interactions with others and are as broad as each individual's lived experiences. Thus, schools should relate morality to actual conditions and problems facing the community. They can do this by engaging in service-learning.

Preservice Teachers and Service-Learning

Although not a new phenomenon, service-learning has emerged as a praxeology (reflection and action done in conjunction with others) that has considerable potential to support and improve teacher education programs in the United States. Because PSTs are faced with increasing pressures to implement standardized tests and provide intensive intervention, they have also adopted more didactic curriculum materials and pedagogical approaches. This shift has been especially difficult for teachers who strive to use experiential or constructivist approaches as posited by Dewey. As an instructional strategy, service-learning allows teachers and teacher educators to meet the needs of students while teaching academic standards (*Jacoby, 1996*). In response to new 21st-century teaching standards and enhanced field experiences, PST education candidates at universities throughout the United States have become increasingly engaged in academic service-learning projects, which offer the opportunity to increase content mastery and reinforce pedagogical skills through authentic community experiences. In the last two decades, service-learning has gained recognition as an effective pedagogy for involving students of all ages in their communities and for strengthening links between the classroom and real-world settings (e.g., *Freeman & Swick, 2003; Lake & Winterbottom, 2009; Taylor & Ballengee-Morris, 2004*). Service-learning, therefore, reinforces Dewey's (1902) notion that school should serve "as a thoroughly socialized affair in contact at all points with the flow of community life" (p. 4).

Instructors working with PSTs have long known the importance of building relationships and making connections with children, peers, families, and the local community. Service-learning enables teacher education programs to emphasize both content and

social skills, or as Dewey described, feelings and thought (Fishman & McCarthy, 2010), in ways that increase the learning potential of all PSTs. Through service-learning, students are challenged to grow as learners and citizens. At the university level, service-learning is an approach to action-learning that is grounded in community-university partnerships in which PSTs provide services that simultaneously address community-identified concerns and meet key learning objectives (Seifer, 1998).

Recent studies have highlighted the increasing effectiveness of service-learning as a pedagogy with PSTs (Lake & Jones, 2008, 2012; Vogel & Seifer, 2011), and many teacher education programs have already begun to fully integrate service-learning (e.g., *Florida State University, University of Oklahoma, and Ohio State University*) (Kezar, 2005; Lewis, 2004). The task of transferring the epistemology of learned coursework to the praxis of teaching presents a challenge for PSTs because they enter teacher education programs with well-established images of *how to do school* (Vacc & Bright, 1999). Subsequently, after a short time in the field, PSTs often fall back on cookie-cutter recipes used by their more experienced peers or even folkways learned from their own educational experiences (Faircloth & He, 2011). Therefore, teacher educators may find it challenging to provide PSTs with experiences designed to develop the necessary skill sets, encourage more active learning approaches, and incorporate the recent Common Core Standards. However, this is not a new challenge. Dewey explained to educators that even though they would face many distractions, they must always keep their focus on the higher purpose of education by asking themselves how they can help their students earn a living and create a worthwhile life (Fishman & McCarthy, 2010).

A poignant concern for most PSTs is that they approach the classroom with a lack of analytical insight into the nature of the learner (Faircloth & He, 2011). In order for PSTs to develop the acumen required to challenge the more didactic, traditional, or standardized test-driven approaches to teaching and apply insights originating from the works of Dewey, as well as other constructivist approaches to learning, a more effective way of integrating epistemology and praxis is clearly needed. A possible nexus could be between PSTs' experiences with service-learning and developmentally appropriate pedagogy.

Few attempts have been made to integrate service-learning into early childhood teacher education programs (Lake & Jones, 2008). Given that constructivist, experiential, and integrated instructional practices strive to make learning meaningful for the individual

child, Lake and Jones (2008) believed that service-learning projects and activities should be integrated into the early childhood curriculum. They argued that PST education programs could implement a cascading model, which involves university instructors teaching service-learning pedagogy to the PSTs who are actively involved in service-learning in local schools and community. Consequently, the PSTs then teach service-learning to the children in their field placement classrooms via the implementation of service-learning projects. Subsequently, the children teach others about service-learning through their community efforts and projects. This model aligns itself with the national reform efforts that emphasize curriculum restructuring and seek to establish even closer links between all types of curriculum, instruction, and assessment.

Dewey (1916) believed that experiential learning would foster an awareness of how students could contribute to and change society. Integrating service-learning in teacher education programs would thus have a positive impact on PSTs. For example, Freeman and Swick (2001) found that service-learning created a greater commitment to teaching and a deeper ethic of care. Earlier studies found that there was an increase of multicultural teaching strategies and sensitivity to diversity and issues of tolerance (Beyer, 1997; Boyle-Baise, 1998; Swick, 1999; Tellez, Hlebowitsh, Cohen, & Norwood, 1995). Moreover, PSTs engaged in service-learning strengthen their moral development (Beyer, 1997); become more politically aware and active in community service (Donahue, 1999); show an increase in their compassion and concern for others (Portthoff et al., 2000); and increase their development of empathetic characteristics and individualistic skills including empathy, leadership, self and societal reflection, confidence, and professional practice (Chambers & Lavery, 2012; Crowther, Ferguson, & Hann, 2008). Chambers and Lavery (2012) further posited that participation in service-learning projects encourages PSTs to display empathy as a direct result of working, playing, and reflecting alongside people who are marginalized in their community. Service-learning is a strategy for "bringing people together, of doing away with the barriers of caste or class or race or type of experience that keep people from real communion with each other" (Dewey, 1902, p. 84).

Methodology

Program Overview

Imagine students at a university redesigning the landscape of the college grounds or a group of students working with the homeless community or collaborating with local farmers to bring healthier food to the lowest socioeconomic groups in the community. These are examples of activities related to service-learning that have been conducted by the PSTs in the last few years. Such activities exemplify Dewey's (1916) concept of learning from experience—nature's way of learning. Service-learning experiences help PSTs connect university curriculum with service projects that deal with real community needs in a hands-on way. Additionally, by implementing service-learning in the classroom, PSTs can meet the needs of all children when they enter their profession.

Over the past 5 years, a university teacher education program at a large research university in the southeastern United States has been collaborating with the local school district through service-learning. The structure of the program requires a large amount of time in field-based classrooms. In March of their sophomore year, approximately 60 to 80 PST candidates apply to the early childhood program; 30 applicants are selected and admitted to the program for the following fall semester. Once admitted, the PSTs' classes are sequenced, and they travel together as a cohort for the next four semesters, or blocks, until graduation. The PSTs are made aware of their acceptance into a program that integrates academic content and service-learning using a cascading knowledge-of-practice model.

In a cascading knowledge-of-practice service-learning model, teacher educators teach service-learning pedagogy to the PSTs who are actively involved in using service-learning in local schools. The PSTs then teach service-learning to the students in their field placement classrooms via the implementation of service-learning projects. Subsequently, the students teach others about service-learning through their community efforts. The integrated cascading approach offers students an opportunity to learn in a way that is most natural to them, as opposed to a segmented approach stressing isolated skills and concepts (*Verducci & Pope, 2001*). This model aligns itself with the national reform efforts that emphasize curriculum restructuring and establishes even closer links between curriculum and community.

Participants and Procedures

The total number of PSTs consenting to participate in this study was 155. The authors obtained IRB approval in 2006 and annually renewed the project through appropriate university channels. Data used in this study included a service-learning questionnaire, service-learning reflection, and focus group interviews. The questionnaire consisted of 32 items designed to allow students to assess their service-learning experiences (questionnaire included below). For each item, students were asked to select “the response that BEST describes your experience.” Each statement was rated both in terms of level of agreement (4-point scale from *Strongly Disagree* to *Strongly Agree*) and level of importance (4-point scale ranging from *Not* to *Very*).

The original questionnaire, developed by Conville and Weintraub (*n.d.*) and adapted by Lake and Jones (2012), did not differentiate between potential categories distributed throughout. However, we believed that the questionnaire items generally fell into three distinct categories: pedagogical skill development, self-actualization, and social-moral development. To confirm this suspicion, two of the authors independently coded each of the 32 statements into one of these three categories. Our initial ratings exhibited an acceptable level of agreement (78%). Disagreements were resolved via discussion. Moreover, each of the composites was submitted to a reliability analysis where alpha scores of higher than .70 signified acceptable reliability. We chose this type of questionnaire in order to align the methodology with the best instrument to describe the phenomenon that we were exploring (Yin, 2009).

Each PST responded in writing to 11 questions that targeted the effectiveness of their project, concepts and skills taught, children's academic and social benefits from participating in the project, how the project supported the state standards, and specific products of the projects. During the focus group interviews, PSTs were asked several open-ended questions regarding their field placement and service-learning.

Similar data analysis was used for the reflections and focus group interviews. The authors began with a starter list of codes (Miles & Huberman, 1994). Two of the authors independently read through the data to get a sense of what the PSTs were saying. The data was reread, and evidence to support pedagogical skill development, self-actualization, and social or moral development was identified. The authors shared those findings with each other, triangulated the data with the results in Table 1, and performed the

final analysis (*Hatch, 2002*). To protect confidentiality, pseudonyms were assigned to the PSTs.

Service-Learning Questionnaire

Each preservice teacher completed the questionnaire by marking the response that best described their experience. Each statement was rated both in terms of level of agreement (4-point scale from *Strongly Disagree* to *Strongly Agree*) and level of importance (4-point scale ranging from *Not* to *Very*).

1. To gain skills and experience that would be valuable in my career.
2. To complement what I was learning in the classroom.
3. To learn about myself.
4. To volunteer my time to help people.
5. To make a difference in issues of local, national, and/or global importance.

As a result of my involvement:

6. I developed a better understanding of the concepts important to be effective in this experience.
7. I understand the connection between the themes I have studied in class and this experience.
8. I learned to apply principles from my courses to new situations.
9. I gained a better understanding of my values and personal attitudes.
10. I gained a better understanding of my strengths and weaknesses.
11. I gained more self-confidence.
12. I was able to assess my own assumptions about social, political, and/or economic issues.
13. I am more tolerant of people who have different backgrounds and lifestyles than me.
14. I can cope more effectively with stress and real-life difficulties.

15. I am able to learn, understand, and respect professional and/or business standards.
16. I am able to understand and appreciate different cultural norms.
17. I improved my written communication skills.
18. I improved my verbal communication skills.
19. I enhanced my ability to lead a group.
20. I further developed my capacity for independent learning.
21. I enhanced my ability to understand different points of view.
22. I can work more effectively as a team member.
23. I refined my ability to articulate new ideas.
24. I increased my capacity to make moral/ethical judgments.
25. I am better able to express dissenting opinions.
26. I learned appropriate ways to deal with conflict.
27. I will apply what I have learned to other settings.
28. I will remain more informed about local, national, and/or international issues.
29. I will engage others in identifying and proposing solutions concerning social, economic, or political issues.
30. I will work to become an activist for causes that are important to me.
31. I plan to use service-learning as a way of teaching in my future classrooms.
32. I plan to stay involved with service projects and activities in the future and work to involve my family and friends.

Table 1. Summary of Survey Results

Item Categories	Descriptive Analyses		Test of Difference from Scale Midpoint	
	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Pedagogical				
Agreement ($\alpha = .79$)	3.48	0.35	34.64	<.001
Importance ($\alpha = .87$)	3.65	0.40	34.28	<.001
Self-Actualization				
Agreement ($\alpha = .81$)	3.31	0.41	24.48	<.001
Importance ($\alpha = .85$)	3.60	0.44	29.89	<.001
Social/Moral Development				
Agreement ($\alpha = .87$)	3.46	0.40	28.99	<.001
Importance ($\alpha = .89$)	3.61	0.43	31.11	<.001

Note. Due to missing data for some participants, *N* ranges from 138 to 149 for these analyses.

Results and Discussion

The findings reflected how the PSTs assessed the degree of support that service-learning provided them and its level of importance to them while working in the field as part of a PST program. The main results are presented in Table 1. Each of the six item categories (agreement and importance ratings for the three response categories of pedagogical, self-actualization, and social-moral development) represents an averaged composite where higher numbers indicate more agreement or higher importance ratings. Items were coded such that 1 was the minimum score and 4 was the maximum score (hence, the scale midpoint was 2.5). Each of the six composites was submitted to a reliability analysis where alpha scores of higher than .70 signified acceptable reliability. As Table 1 indicates, each of the six composites was acceptably reliable. Table 1 also includes means and standard deviations for each of the item composites. In each case, average ratings were significantly above the midpoint, indicating that students, on average, believed that their service-learning experiences had a positive impact on the development of their pedagogical skills, improved their self-actualization, and heightened their awareness of social-moral issues.

Pedagogical Skill Development

In focus group interviews, many PSTs expressed that the service-learning projects were the highlight of their semester. When questioned further, they explained that the service-learning projects allowed them to implement early childhood pedagogy as they

had been taught in their teacher education courses. They discussed how they were able to integrate the curriculum and utilize active learning strategies, which were a departure from their regular classroom curriculum.

More specifically, the PSTs shared in their reflections information on knowledge and practices. They stated that their students learned during the hands-on activities and that those activities brought meaning to the learning. For example, Olivia said of the gardening project, "The students benefited from the project by learning and seeing what a flower looks like, what it needs to grow, etc.,". Another PST mentioned that the daily watering and maintaining the garden helped keep the knowledge and experience "fresh in their minds" (Maxi). Other PSTs used the idea of pollution with information on specific animals to further their students' knowledge. They became aware of the environment and how the environment affects the animals that live there. One PST stated, "They have learned what the word *endangered* means and that the sharks could eventually be endangered if the ocean stays polluted."

Using appropriate skills, such as communicating through writing letters, was another way that the PSTs taught content through service-learning projects. Jennifer noted how the "letters reinforced what the students learned about manatees throughout the week." Vocabulary building was another skill that was developed through these service-learning projects: "A lot of the terms used like *recycling*, *endangered species*, and *habitat* were new to them" (Eileen). Each project had its own set of new vocabulary items on such topics as military terms, life cycle of the alligator, and community awareness.

These projects were well-designed service-learning experiences that allowed the PSTs to meet the required academic standards of young children in meaningful ways. Each project reinforced nature's way of learning by providing opportunities for the children to apply their learning to the community while meeting the fundamental skills and core objectives of the curriculum (Dewey, 1916). Examples of service-learning projects that the PSTs used to enhance pedagogical skill development included gardening and letter writing. During these types of projects, the PSTs developed their ability to teach specific academic skills such as language and literacy, mathematics, science, and social studies.

Gardening. Through the gardening projects, the PSTs helped the children understand and participate in activities for the betterment of their community and school. These projects also helped

the children develop areas of sensory and motor skills by having them dig, plant, measure, nurture plants, and decorate planters for class or school beautification or so plants or flowers could be given away to others in need.

Letter writing. Letter-writing projects as a part of service-learning experiences included dictating, drawing, or writing cards and letters that engaged with different community members such as the troops, the farmers, the governor, the president, grandparents, and other children about content and knowledge learned in school. Both PSTs and students were involved equally through different mediums. For example, one child who had a visual impairment dictated her story into a tape recorder, and the teacher transferred her words onto her card.

Social-Moral Development

Because service-learning projects focus on a community need and include both academic and social objectives, the PSTs also discussed the benefits of teaching targeted social skills. They realized that it was more beneficial to be proactive and help children understand what was expected of them by modeling and teaching specific social skills than by reacting to negative behaviors when they occurred. PSTs also realized that as active learning increased, classroom management issues decreased. The specific teaching of social skills, along with active learning, created a more engaged environment with fewer discipline problems.

In their reflections, the PSTs noted a variety of social-moral skills taught or reinforced during the service-learning projects, such as working together cooperatively, helping others, encouraging, sharing, listening, empathizing, communicating, and responding appropriately to others. After a service-learning project on inter-generational relationships, Rae reported:

Students were able to identify ways in which to help the community and explain why it is important to help others. Students talked about how proud they were to be able to help the community. We also discussed how they were able to share with the elders at the nursing home. The students were eager to do what they could on their own to help the community.

After a project on the potential dangers to animals of a polluted environment, Helen's students

wanted to clean up our environment for the animals around our school ground. Some of the students used to throw their trash around the playground, and nobody would pick it up. Now the students look for litter to clean up instead of adding to the litter around the school and within our classroom. I realized that the students understand the importance of helping other people and animals. I feel that it is important to lend a hand to the community and teach students about it.

Abbie noticed that “the students are getting along more. The words ‘thank you’ have been used a lot more. I just see the students wanting to do nice things for each other.”

Dewey (1916) asserted that moral behavior is determined by a set of values learned from lived experiences that children bring to the educational setting and that stem from the children’s study of their own environments and communities. He believed that these behaviors should be based directly on interactions with others and that schools should relate morality to actual conditions and problems facing the community. The focus group interviews and PST reflections demonstrate service-learning’s ability to actualize Dewey’s vision of moral development. Examples of service-learning that the PSTs used to enhance social-moral development included working on endangered species and pollution and recycling projects.

Endangered species. During the implementation of the endangered species service-learning projects, the students learned about endangered animals, their habitats, reasons why animals are losing their homes, and what they could do about it. This was another way that the PSTs and the students were able to be involved with helping raise their community’s awareness. These projects allowed learners to be involved through a variety of modalities: making posters about the benefits of bats; drawing pictures; acting out the loss of the rainforest; using language to tell their schools, community, and families about sharks; and collecting food for the preservation of homeless cats and dogs.

Pollution and recycling. Both PSTs and students learned about the effects of pollution on humans and the earth while also studying recycling as a solution. These projects helped the students develop a consciousness of pollution and recycling within their own community as well as in their school. Through such hands-on activities as making classroom or school recycling bins, sorting recyclable materials, beach cleanup, sensory sorting, and

raising awareness via posters and school cleanup, all learners were involved with the project.

Self-Actualization

Teachers today are pressured to provide more traditional instructional approaches to the curriculum in addition to providing education that increases the students' engagement and experiences (Zemelman *et al.*, 1998). Most of the PSTs from this study stated that implementing their service-learning projects was the closest they had come to their vision of themselves as teachers. Instead of focusing on the traditional approach to teaching, active, hands-on learning was used in the service-learning projects. The PSTs described having fun with the children while learning was taking place, thus moving closer to self-actualization. They enjoyed watching the students become motivated and excited about the projects. "I have never seen students want to give up their recess in order to clean up trash, but every day we have filled up a paper bag with trash the students have found outside," said one PST. Another PST remarked, "I feel that the service-learning project put fun back into school for them." In regard to the learning that took place, another PST commented, "I think that it is a great way to teach content, standards, and social skills in an interactive and meaningful way. I could see how much the children enjoyed and learned from doing it when I was teaching." To see what they have learned come to life helps boost their enthusiasm about the subject.

These service-learning projects exemplify the recommendations for best practices by NAEYC by providing active and meaningful experiences for children (Copple & Bredekamp, 2009). PSTs were allowed to design and implement instruction for young children using developmentally appropriate practices in lieu of the more traditional methods, thus engaging in praxeology that early childhood education holds as its standard. Examples of service-learning that the PSTs used to enhance self-actualization development included helping others who were not in a position to help themselves.

Helping others. The projects oriented toward helping others focused on food and clothing drives, children in hospitals, autism awareness, hurricane relief, and cancer awareness, and more. Through these projects, students and PSTs were exposed to people who had experienced an unfortunate circumstance, who were different from them in some way, or who had a need that these children could help with. These projects helped the students under-

stand what was happening in their community and in many cases, the PSTs learned about the differences of a child or children in their own classrooms.

As these projects from the three categories demonstrate, service-learning is based on real-life issues in which students and community partners collaborate to address and solve real problems and create transformations regarding the issues and the people involved. All parties—PSTs, students, and community members—benefited from the projects. Each project required the children to apply basic academic skills that are included in education standards. For example, many of the service-learning projects required both the PSTs and the students to engage in problem solving, collaboration, and perspective taking. The PSTs and the students had to utilize communication skills, extend their vocabulary, participate in shared research, read purposefully, refine and share knowledge through writing, speaking, and actions, build on others' ideas, and articulate their own ideas. These are just a few of the standards that are addressed in Common Core for young children. What better way to learn academics than to apply them to real-life issues based on student interests?

Conclusion

This study examined service-learning with early childhood PSTs as an approach to learning, but it should be noted that service-learning can be effective for PSTs in any program. It can change PSTs' approaches and views regarding disadvantaged people (Conner, 2010) because it helps them develop empathy and sensitivity to others (Chambers & Lavery, 2012) and to examine their preconceived ideas and stereotypes about those who are different from them. Service-learning experiences also help PSTs give attention to their thoughts and actions in order to become sensitive to the service recipients (Conner, 2010).

Service-learning provides PSTs, regardless of program area, with a pedagogy that meets the demands of a standards-driven educational system while still allowing children to participate in engaged meaningful learning that is concrete and experiential (Furco, 1996). It allows PSTs to apply what they have learned in their teacher education classes about experiential learning and appropriate practices.

The basic theory of service-learning is Dewey's: the interaction of knowledge and skills with experience is key to learning. Students learn best not by reading the

Great Books in a closed room but by opening the doors and windows of experience. Learning starts with a problem and continues with the application of increasingly complex ideas and increasingly sophisticated skills to increasingly complicated problems. (*Erlich, 1996, p. 11*)

Service-learning experiences allow PSTs to grow both individually and professionally and help them to be change agents, thus moving closer to their ideal vision of themselves as teachers. Additionally, engaging in service-learning promotes leadership skills in children and PSTs and aids in the development of citizenship (*Chambers & Lavery, 2012*). It allows PSTs to experience the power that they can use, even through a small group's voice, to make changes in their community (*Ethridge, 2006*).

Limitations and Future Research

Service-learning is a methodology that requires educators, students, and community partners to work together for the benefit of all. This requires time, communication, and often branching out of one's comfort zone. There is no doubt that it is a time-consuming endeavor for everyone involved; however, the time invested is what makes it a meaningful learning experience. The field of early childhood education is in large part relationship-based and experiential; therefore, service-learning provides a way for early childhood teacher educators to actually practice what they teach.

A key area in which improvement needs to be made in the practice and research of service-learning is getting in-depth feedback from the community partners. Again, the amount of time it takes to obtain thoughtful, honest, critical feedback is a limitation that is often difficult to overcome. Future research could address this issue by stating the plan for assessment of the service-learning project upfront. Connecting the service-learning project to a grant that compensates community partners for their time might also be a way to address this issue.

The field of early childhood education would benefit from more examples of and research on direct service-learning projects. Children benefit greatly from face-to-face interactions with community partners. The opportunity for children to experience the environment of their community partners, such as assisted living centers, pet adoption agencies, and recycling centers, can make the learning experience even more concrete, engaging, and memorable. It is often difficult to arrange for direct service-learning projects

due to transportation costs. Field trips within walking distance or applying for local education grants might be pipelines for achieving this goal.

In conclusion, there is no doubt that Dewey's theories are still relevant in education today. Since Dewey's time, society may have changed in ways beyond his imagination, but his focus on experiential learning, reflective thinking, and inquiry is in accord with the aims of education reform and the adoption of the Common Core State Standards (*National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010*). Just as Dewey asserted that schools should establish an effective moral education environment by creating a genuine community life, service-learning can be the approach that connects his theory to practice. Teachers can combine the work and play of school through constructive, experiential, and active activities because they promote a constructive social-moral atmosphere. Service-learning will allow learning in school to be continuous with learning out of school, thus fulfilling Dewey's vision of school and community working together to provide students with guided experiences, real-life tasks, and challenges that promote their capacity to contribute to society.

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